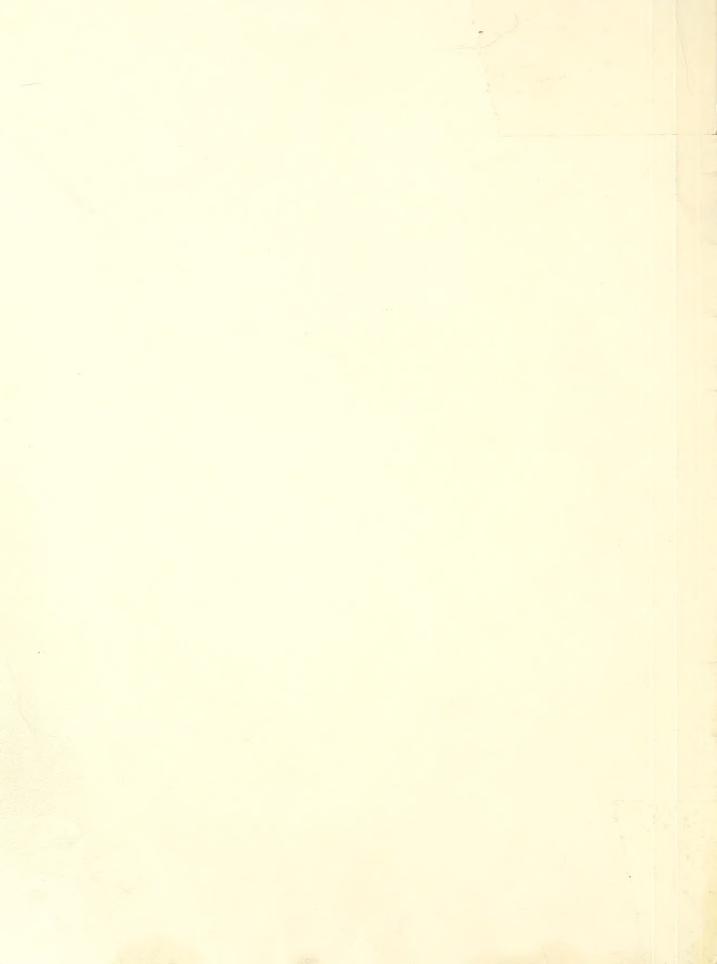
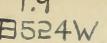
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United States Department of Agriculture Bureau of Biological Survey

Wildlife Research and Management Leaflet BS-50

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FRUITS ATTRACTIVE TO BIRDS - FLORIDA REGION No. 10

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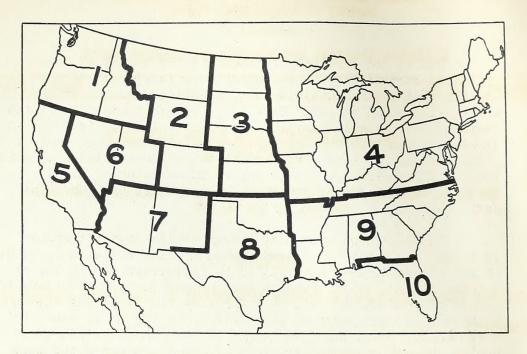


FIGURE 1.--Map of the United States, showing the 10 regions used in presenting information on fruits attractive to birds.

As an aid in requesting leaflets, it should be noted that No. RS-41 is for region 1; RS-42, for region 2, etc., with RS-50 for region 10.

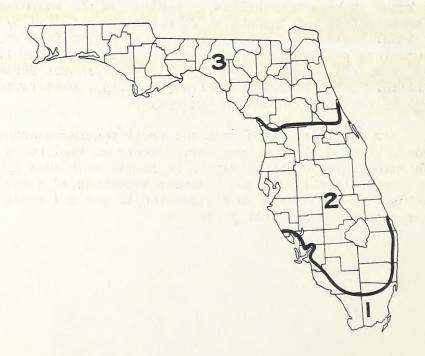


FIGURE 2 .-- Planting zones of Florida.

INTRODUCTION

Due to geographical location and the climate-modifying effect of surrounding waters, conditions in Florida vary so greatly that recommendations as to planting must be given by zones. The zones adopted (Fig. 2, p. 2) are those used by the Florida Agricultural Experiment Station in its publications on ornamental plants. The author of those publications, Professor Harold Mewry, has kindly criticized the tables included in this leaflet and assisted in other ways. Cooperation of W. M. Buswell, of Fort Myers, and of H. Harold Hume, of Glen Saint Mary, also is acknowledged.

Table 1 shows groups of fleshy fruits most attractive to birds throughout the United States and lists desirable kinds of birds most fond of the fruit. No barberries, currents, or buckthorns are listed, because they harbor rusts destructive to plants of economic importance. Junipers are in almost the same category, as they serve as alternate hosts for apple rust, but there is no reason why they cannot be used in districts where apples are not commercially grown, as they are among the most valuable plants for wildlife. Omitted also are plants poisonous to man on contact, as poison ivy and poison sumac, as well as various kinds dangerously poisonous to domestic animals, as yews, wild cherries, and nightshades, in spite of the fact that wild cherries are greatly relished by birds. Browsing animals are known to have been killed by feeding on the leaves of wild cherries but do not seem to be so seriously affected by those of plums. Certain plants included among fleshy fruit bearers in previous publications have been transferred to the list of seed producers, hence do not appear in the present series of leaflets. These include magnolia (Magnolia), bittersweet (Celastrus), and burningbush (Euonymus).

It should be noted that the fruit-bearing seasons recorded, being collected from varied sources, tend to be maxima. As a rule they are not likely to be realized or even approached in a single locality unless numerous specimens of a given species are present and so distributed in sun and shade as to favor both early and late fruiting.

TABLE 1. - Groups of fleshy fruits most attractive to birds throughout the
United States

Name of fruit		Species of birds known to eat the fruit		
Common	Generic	Num_2/	Desirable kinds most fond of the fruit	
Juniper; redcedar3/	Juniperus	50	Flicker, mockingbird, robin, eastern bluebird, cedar waxwing, myrtle warbler, evening and pine grosbeaks, purple finch.	
Greenbrier	Smilax	43	Mockingbird, catbird, brown thrasher, robin, hermit thrush, cardinal.	
Bayberry	Myrica	85	Bobwhite, flicker, downy woodpecker, eastern phoebe, tree swallow, black- capped chickadee, Carolina wren, cat- bird, brown thrasher, hermit thrush, eastern bluebird, white-eyed vireo, myrtle warbler, meadowlark, towhee.	
Hackberry	Celtis	47	Flicker, yellow-bellied sapsucker, mockingbird, brown thrasher, robin, eastern bluebird, cedar waxwing, cardinal.	
Mulberry	Morus	59	Yellow-billed cuckoo, red-bellied, red- headed, and downy woodpeckers, eastern kingbird, mockingbird, catbird, robin, wood thrush, cedar waxwing, red-eyed vireo, yellow warbler, orchard and Baltimore orioles, scarlet tanager, cardinal, purple finch.	
Pokeberry	Phytolacca	52	Mourning dove, flicker, eastern kingbird, mockingbird, catbird, robin, hermit, olive-backed, and gray-cheeked thrushes, eastern bluebird, cardinal.	
Spicebush	Benzoin		Eastern kingbird, wood thrush, veery, red-eyed vireo.	
Sassafras		18	Bobwhite, eastern kingbird, catbird, robin, veery, red-eyed vireo.	
Strawberry	Fragaria		Catbird, brown thrasher, robin, wood thrush, towhee.	

TABLE 1. - Groups of fleshy fruits most attractive to birds throughout the
United States--Continued

Name of fruit			ecies of birds known to eat the fruit		
Common	Generic	: Num-	Desirable kinds most fond of the fruit		
Raspberry, black- berry	Rubus	: 146	Ruffed grouse, bobwhite, flicker, red- headed woodpecker, eastern kingbird, tufted titmouse, wren tit, mockingbird, catbird, brown thrasher, robin, wood and olive-backed thrushes, eastern bluebird, cedar waxwing, red-eyed vireo, orchard and Baltimore orioles, cardinal, rose- breasted, black-headed, and pine grosbeaks, red-eyed, spurred, and California towhees, white-throated, fox, and song sparrows.		
Rose	Rosa	38	Ruffed and sharp-tailed grouse, prairie chicken, bobwhite.		
Mountain-ash	Sorbus	: 13	Red-headed woodpecker, catbird, brown thrasher, robin, Bohemian and cedar waxwings, Baltimore oricle, evening and pine grosbeaks.		
Chokeberry	Aronia	21	Brown thrasher, meadowlark.		
Hawthorn	: Crataegus	39	Ruffed grouse, robin, purple finch, pine grosbeak.		
Apple	Malus	43	Ruffed grouse, ring-necked pheasant, mockingbird, robin, cedar waxwing, purple finch, pine grosbeak, red crossbill.		
Juneberry	Amelanchier .	42	Flicker, catbird, robin, hermit thrush, veery, cedar waxwing, Baltimore oriole.		
Sumac ⁴ /	Rhus	97	Ruffed grouse, bobwhite, valley quail, northern and red-shafted flickers, red-bellied and downy woodpeckers, phoebe, black-capped and Carolina chickadees, wren tit, Carolina wren, mockingbird, catbird, brown and California thrashers, robin, hermit thrush, eastern bluebird, white-eyed vireo, towhee, Audubon's warbler, goldfinch, golden-crowned sparrow.		
Pepperberry	Schinus	12	Robin, varied and hermit thrushes, cedar waxwing, phainopepla.		

TABLE 1. - Groups of fleshy fruits most attractive to birds throughout the United States -- Continued

Name of f	ruit	Spe	ecies of birds known to eat the fruit	
Common	Generic	Num-	Desirable kinds most fond of the fruit	
Holly	Ilex	48	Ruffed grouse, bobwhite, valley quail, flicker, yellow-bellied sapsucker, mockingbird, catbird, brown thrasher, robin, hermit thrush, eastern bluebird, cedar waxwing.	
Supplejack	Berchemia	15	Mockingbird, robin.	
Grape	Vitis	87	Ruffed grouse, bobwhite, northern and red-shafted flickers, pileated and red-bellied woodpeckers, eastern kingbird, mockingbird, catbird, brown thrasher, robin, wood thrush, veery, eastern and western bluebirds, cedar waxwing, cardinal.	
Virginia creeper .	Ampelopsis	38	Flicker, red-bellied and red-headed wood- peckers, yellow-bellied sapsucker, tufted titmouse, mockingbird, brown thrasher, robin, hermit, olive-backed, and gray-cheeked thrushes, eastern blue- bird, red-eyed vireo, scarlet tanager, evening grosbeak, purple finch.	
Buffaloberry:	Shepherdia :	18	Sharp-tailed grouse, pine grosbeak.	
Silverberry, Rus- sian olive, etc.		5/	Prairie chicken, sharp-tailed grouse, catbird, robin, cedar waxwing.	
Wild-sarsaparilla	Aralia	16	Bobwhite, robin.	
Dogwood	Cornus	93	Ruffed grouse, bobwhite, northern and red-shafted flickers, downy woodpecker, eastern kingbird, catbird, brown thrasher, robin, wood, hermit, olive-backed, and gray-cheeked thrushes, eastern bluebird, cedar waxwing, redeyed and warbling vireos, cardinal, evening and pine grosbeaks, purple finch, white-throated and song sparrows.	
Sourgum, tupelo :	Nyssa	39	: Flicker, robin, olive-backed and gray- cheeked thrushes, cedar waxwing, purple finch.	
Crowberry	Empetrum	40	Pine grosbeak, snow bunting.	
Bearberry, manza- nita	: Arctostaphylos	34	: Dusky and ruffed grouse, valley and : mountain quail, wren tit, fox sparrow.	

TABLE 1. - Groups of fleshy fruits most attractive to birds throughout the
United States -- Continued

Name of fi			ecies of birds known to eat the fruit	
Common	Generic	Num-	Desirable kinds most fond of the fruit	
Wintergreen	Gaultheria	10	Ruffed grouse, wren tit.	
Huckleberry	Gaylussacia .	46	Robin, pine grosbeak, towhee.	
Blueberry	Vaccinium	93	Ruffed grouse, valley quail, eastern kingbird, black-capped chickadee, tufted titmouse, catbird, brown thrasher, robin, hermit thrush, eastern bluebird, cedar waxwing, orchard oriole, pine grosbeak, towhee.	
Beautyberry	Callicarpa . :	11	Mockingbird, brown thrasher.	
Partridgeberry	: Mitchella	10	Ruffed grouse.	
Elderberry	Sambucus	118	Valley quail, flicker, red-headed wood- pecker, eastern and Arkansas kingbirds, black phoebe, wren tit, mockingbird, catbird, brown and California thrashers, robin, olive-backed thrush, eastern and western bluebirds, phainopepla, red- eyed vireo, rose-breasted and black- headed grosbeaks, California towhee, white-crowned sparrow.	
Snowberry, coral- berry	Symphoricarpos:	33	Sharp-tailed grouse, varied thrush, evening and pine grosbeaks.	
Blackhaw, cran- berrybush	Viburnum	35	Ruffed grouse, yellow-billed cuckoo, flicker, catbird, brown thrasher, robin, eastern bluebird, cedar waxwing, rose-breasted grosbeak, purple finch.	
Honeysuckle	Lonicera	18	Bobwhite, catbird, brown thrasher, robin, hermit thrush, pine grosbeak, white-throated sparrow.	

Barberries (Berberis), buckthorns (Rhammus), and currants (Ribes) are omitted because they serve as alternate hosts of rusts, attacking wheat, oats, and white pine, respectively. Yews (Taxus), wild cherries (Prunus), and nightshades (Solanum) also are omitted as being dangerous stock poisoning plants.

^{2/} When 10 or more.

^{3/} Carries apple rust; should not be planted near valuable orchards.

^{4/} Only nonpoisonous species of sumac are considered.

^{5/} Data given are based entirely on field observations; total number of birds eating the various species of Elaeagnus unknown.

TABLE 2.--Fruits suitable for Zone 1 for which satisfactory data on fruiting seasons are lacking

(This list includes both native and introduced species.

Numbers in Remarks column refer to zones)

Common name	Scientific name	Remarks
Chinese juniper	Juniperus chinensis	
Buccaneer palm	Pseudophoenix sargenti	
Saw cabbage palm	Paurotis wrighti	1
Silver palm	Coccothrinax argentea	
Saw palmetto	Serenoa serrulata	3 also.
Needle palm	Rhapidophyllum hystrix	2 also.
James palmetto	Sabal jamesiana	2 21200
Blackburn palmetto	Sabal blackburniana 2.	
Cabbage palmetto	Sabal palmetto	3 also.
Florida thatch palm	Thrinax floridana	0 4250
Key thatch palm	Thrinax keyensis	
Brittle thatch palm	Thrinax microcarpa	1 1 1 1 1 1 1 1
Macarthur palm	Actinophloeus macarthuri	
Merrill palm	Adonidia merrilli	
Arikury palm	Arikuryroba schizophylla	
Sugar palm	Arenga saccharifera	
Fish-tail palm	Caryota mitis	
Toddy palm	Caryota urens	2 also.
Yellow palm	Chrysatidocarpus lutescens	4
Coquita palm	Jubaea spectabilis	2 also.
Senegal date palm	Phoenix reclinata	
India date palm	Phoenix sylvestris	
Australian fan palm	Livistonia australis	2 also.
Chinese fan palm	Livistonia chinensis	Do.
Sickle-thorn	Asparagus falcatus	Do.
Greenbrier	Smilax havanensis . z	
Waxmyrtle	Myrica	Any native species.
Indian laurel	Ficus nitida	2 also.
Weeping laurel .z	Ficus benjamina	Do.
Lofty fig	Ficus altissima	Do.
Wild fig	Ficus brevifolia	Do.
Strangler fig	Ficus aurea	
India rubbertree	Ficus elastica	
Dotted fig	Ficus infectoria	
Trumpet tree	Cecropia peltata	
Black mulberry	Morus nigra	
Red mulberry	Morus rubra	
White mulberry	Morus alba	
Sea-grape	Coccolobis uvifera	2 also.
Do	Coccolobis laurifolia	Do.
Rouge Plant	Rivina humilis	3 also.
Pokeberry	Phytolacca rigida	2 also.
Pondapple	Annona glabra	Do.
Alligator apple	Annona palustris	
Coral bead	Cebatha laurifolia	2 also.

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TABLE 2.--Fruits suitable for Zone 1 for which satisfactory data on fruiting seasons are lacking--Continued

Common name	Scientific name	Remarks
Shore bay	Persea littoralis	2 also.
Do	Persea humilis	Do •
Red bay	Persea borbonia	3 also.
Lancewood	Ocotea catesbyana	2 also.
India hawthorn	Raphiolepis indica	Do.
Loquat	Eriobotrya japonica	Do.
Cocoa plum	Chrysobalanus icaco	Do.
Do	Chrysobalanus pellocarpus	Do.
Gopher apple	Chrysobalanus pallidus	Do.
Gumbo limbo	Elaphrium simaruba	6
Chinaberry	Melia azedurach	3 also.
Sumac	Rhus obtusifolia	2 and 3 also.
Do	Rhus leucantha	
Peppertree	Schinus terebinthifolius	2 also.
Holly	Ilex krugiana	
Wild grape	Vitis tiliifolia	
Do	Vitis coriacea	:
Wild ivy	Cissus sicyoides	2 also.
Do	Cissus trifoliata	Do.
Peppervine	Ampelopsis arborea	3 also.
Virginia creeper	Ampelopsis quinquefolia	2 also.
Passionflower	Passiflora suberosa	•
Do	Passiflora sexflora	:
Do	Passiflora pallens	•
Surinam cherry	Eugenia uniflora	2 also.
Brazilian cherry	Eugenia dombeya	Do.
Spanish stopper	Eugenia buxifolia	Do.
Red stopper	Eugenia confusa	
Rose apple	Eugenia jambos	2 also.
Strawberry guava	Psidium cattleianum	Do.
Spicewood	Calyptranthes pallens	
Blueberry	Vaccinium	Any native species.
Myrsine	Rapanea guyanensis	2 also.
Marlberry	Iacacorea paniculata	Do •
Persimmon	Diospyros virginiana	3 also.
Sapodilla	Achras sapota	
Wild olive	Sideroxylon mastichodendron	4
Saffron plum	Bumelia angustifolia	10.7.0
Florida privet	Forestiera porulosa	2 also.
Wild olive	Osmanthus floridana	Do.
Privet	Ligustrum coriandrum	12 (2) (2)
Do	Ligustrum ovalifolium	2 also.
Hedge thorn	Carissa acuminata	Do • ·
Natal plum	Carissa grandiflora	Do •
Matrimony-vine	Lycium carolinianum	Do .
Purple cestrum	Cestrum elegans	
Orange cestrum	Cestrum aurantiacum	•
Night-blooming cestrum.	Cestrum nocturnum	
Premna	Premna odoratum	

TABLE 2.--Fruits suitable for Zone 1 for which satisfactory data on fruiting seasons are lacking--Continued

Common name	Scientific name	Remarks
Do. Glorybower Skyflower Pigecnberry Scarletbush Snowberry Do. Tild coffee Do. Do. Ixora Elderberry	Callicarpa americana Lantana involucrata Lantana odorata Clerodendron thomsonae Duranta plumieri Duranta repens Hamelia patens Chiococca alba Chiococca pinetorum Psychotria undata Psychotria bahamensis Psychotria sulzneri Ixora coccinea (and other species) Sambucus intermedia Viburnum tinus	Do. Do. Do. 2 also. 2 also. 2 also. 3 also.

TABLE 3.--Fruits suitable for Zones 2 and 3 for which satisfactory data on fruiting seasons are lacking

(This list includes both native and introduced species. Numbers in Remarks column refer to zones)

Common name	Scientific name	Remarks
Canary date palm Bonnet palm Pindo palm Waxmyrtle Black mulberry Red mulberry White mulberry Climbing fig Coral bead Sassafras Spicebush Camphor-tree Black chokeberry Purple chokeberry Purple chokeberry Southern crabapple June berry Do. Hawthorn Do. Do.	Rhapidophyllum hystrix Phoenix canariensis Butia bonneti Butia capitata Myrica Morus nigra Morus rubra Morus alba Ficus pumile Cebatha carolina Sassafras variifolium Benzoin melissaefolium Cinnamomum camphora Aronia melanocarpa Aronia atropurpurea Malus angustifolia Amelanchier canadensis Amelanchier oblongifolia Crataegus contrita Crataegus pulcherrima Crataegus spathulata Crataegus viridis	l also. Do. Any native species 3 only.
Do	Crataegus consanguinea	Any native species.

TABLE 3.--Fruits suitable for Zones 2 and 3 for which satisfactory data on fruiting seasons are lacking--Continued

The state of the s		
Common name	Scientific name	Remarks
Gopher apple	Chrysobalanus oblongifolius	l also.
Chinaberry	Melia azedarach	
Fragrant sumac	Rhus canadensis	
Smooth sumac	Rhus glabra	Landston same and a
Staghorn sumac	Rhus typhina	
Sagaretia	Sagaretia minutiflora	Lang West, Sold Barton
Frost grape	Vitis cordifolia	3 only.
Riverbank grape	Vitis vulpina	. Do .
Sweet wintergrape		Do.
Virginia creeper	Ampelopsis quinquefolia	: 1 also.
Wild ivy		Do.
Yellow passionflower		
Purple granadilla		
	Dirca palustris	3 only.
	Cornus microcarpa	Do.
	Cornus amomum	Do.
	Cornus florida	
	Aralia spinosa	
Huckleberry		. Any native species.
Blueberry		. Do.
	Bumelia	Do.
	Forestiera pubescens	
	Forestiera ligustrina	
Fringe tree	Chionanthus virginiana	
Privet	:Ligustrum amurense	
Do		
Do		A SHEET WAS IN THE TOTAL
	Ligustrum nepalense	
	Carissa caranda	
	Ehretia acuminata	I a second to the second to th
	Lycium carolinianum	
	: Cestrum parqui	
	Lantana camara	l also.
	Lantana sellowiana	Do.
Blackhaw	Viburnum dentatum	et a second
Do	Viburnum cassinoides	3 only.
Do	Viburnum rufidulum	Do.
Laurustinus	Viburnum tinus	1 also.
Partridgeberry	Mitchella repens	
Japanese honeysuckle	Lonicera japonica	l also.
Trumpet honey suckle	Lonicera sempervirens	Do.

TABLE 4--Fruits of Zones 2 and 3 for which satisfactory data on fruiting seasons are available

Common name	Scientific name	Fruiting season
Redcedar		All year.
Stinking cedar	Tumion taxifolium	Early August to late October
Cabbage palmetto	Sabal palmetto	Mid-October to late November.
Saw palmetto	Serenoa serrulata	Mid-June to early November.
Laurel greenbrier	Smilax laurifolia	All year.
Coral greenbrier	Smilax walteri	Mid-July to mid-April.
Lobed greenbrier	Smilax beyrichii	Early August to late April.
Southern waxmyrtle	Myrica cerifera	Mid-July to late March.
Sugarberry	Celtis mississippiensis	Mid-May to mid-November.
Rouge-plant	Rivina humilis	All year.
Pokeberry	Phytolacca decandra	Mid-May to late December.
Redbay	Persea borbonia	All year.
Red chokeberry	Aronia arbutifolia	Mid-July to early March.
Parsley hawthorn	Crataegus apiifolia	Early September to mid-November.
Hog plum	Prunus umbellata	Early June to late August.
Cherokee rose	Rosa laevigata	Early August to late March.
Southern dewberry	Rubus trivialis	Early April to mid-July.
Dwarf sumac	Rhus copallina	Mid-June to late March.
Inkberry	Ilex glabra	All year.
Yaupon	Ilex vomitoria	Mid-July to early March.
Supplejack	Berchemia scandens	Mid-July to late March.
Peppervine	Ampelopsis arborea	Early July to early November
Summer grape	Vitis aestivalis	Mid-July to late September.
Bullace grape	Vitis munsoniana	All year.
Maypop	Passiflora incarnata	Mid-June to late August.
Dogwood	Cornus stricta	Early August to late September.
Sourgum	Nyssa sylvatica	Early July to early December.
Dwarf huckleberry . :	Gaylussacia dumosa	Early May to mid-July.
Farkleberry	: Batodendron arboreum	Early July to mid-March.
Highbush blueberry	Vaccinium corymbosum	Early February to late July.
Blueberry	Vaccinium myrsinites	Early April to late June.
Bumelia	Bumelia lanuginosa	Early August to mid-November.
Persimmon	Diospyros virginiana	Early August to early November
Wild olive	Osmanthus americana	Mid-August to late March.
	Callicarpa americana	Early July to late February.
Elderberry	Sambucus intermedia	Early April to mid-November.
Blackhaw	Viburnum obovatum	All year.

Notes supplementary to Table 4

Redcedar.—Southern redcedar, <u>Juniperus lucayana</u> (often listed as <u>J. barbadensis</u>), is of equal value, has the same fruiting season, and ranges somewhat farther south. Japanese juniper, <u>J. japonica</u>, also is adapted.

- Palmetto. -- Bluestem palmetto, Sabal glabra, bearing fruit from June 15 to September 30, may be substituted.
- Greenbrier. -- Various species occur, any of which may be substituted; the large-seeded, persistent fruits are a reserve rather than a staple food for birds.
- Redbay. -- The swamp redbay, <u>Persea pubescens</u>, is available, prefers moister situations, and bears fruit almost the whole year.
- Rose. -- The swamp rose, Rosa palustris (carolina), which holds its fruits nearly the entire year, is available for Zone 3. Other species native to north Florida also may be used.
- Dewberry. -- The sand blackberry, Rubus cuneifolius, bearing fruit from mid-May to mid-July, or other native species may be used.
- Chinaberry, Melia azedarach.-Fruit may be available from mid-August to mid-May.
- Inkberry.—Ilex glabra is called gallberry throughout its southeastern range; the fruits of all species of Ilex are eaten by birds, and those of dahoon, I. cornuta, and American holly, I. opaca, are available most of the year.
- Blackhaw.-- Viburnum nudum with about the same fruiting season may be substituted.

LITERATURE

Publications of interest in connection with fruits of Florida include:

Region

Manual of the Southeastern Flora, by John K. Small. 1554 pp., illus., 1933. [Covers the area from North Carolina to Florida and Louisiana.] Inquire as to price from the author, Botanic Garden, New York, N. Y.

State

- Native and exotic palms of Florida, by Harold Mowry. Agr. Expt. Sta., Bull.22 71 pp., illus., May 1931. Inquire as to conditions governing distribution from the University of Florida, Gainesville, Fla.
- Ornamental trees, by Harold Mowry. Agr. Expt. Sta. Bull. 261,136 pp., illus., June 1933. Inquire as to conditions governing distribution from the University of Florida, Gainesville, Fla.